Amendments to the Claims

1. (Currently Amended) A system for receiving a communication signal comprising:

an antenna at a communication tower configured to receive the communication signal at a frequency;

a stabilizing system comprising:

a timing source configured to generate a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal; and

a stabilized local oscillator configured to receive the stable timing signal and to use the stable timing signal as an input to generate a continuously stabilized oscillator signal comprising a frequency that does not drift;

a converting system configured to convert the communication signal from the frequency to a stable lower frequency using the ~~stable timing~~ continuously stabilized oscillator signal, to convert the lower frequency signal to an optical signal, and to transmit the optical signal; and

an optical receiving system configured to receive the optical signal.

2. (Canceled)

3. (Currently Amended) The system of claim 1 wherein the converting system comprises:

a block converter configured to use the continuously stabilized oscillator signal to convert the frequency of the signal to the stable lower frequency.

4. (Original) The system of claim 1 wherein the converting system comprises:

a fiber optic transmitter configured to convert the lower frequency signal to an optical signal and to transmit the optical signal over fiber optic cable.

5. (Original) The system of claim 1 wherein the receiving system comprises:

a fiber optic receiver configured to receive the optical signal over fiber optic cable.

6, 7. (Canceled)

8. (Currently Amended) A system for receiving a communication signal comprising:

an antenna configured to receive the communication signal at a frequency;

a stabilizing system configured to generate a stable timing signal, the stabilizing system comprising:

a timing source configured to generate the stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal; and

a stabilized local oscillator configured to receive the stable timing signal and to use the stable timing signal as an input to generate a continuously stabilized oscillator signal comprising a frequency that does not drift; and

a converting system configured to convert the communication signal from the frequency to a stable lower frequency using the continuously stabilized oscillator signal.

9. (Currently Amended) The system of claim 8 wherein the converting system comprises:

a block converter configured to use the continuously stabilized oscillator signal to convert the frequency of the communication signal to the stable lower frequency.

10. (Canceled)

11. (Previously Presented) A system for receiving a multipoint multichannel distribution service based communication signal at a tower having an upper portion and a lower portion, the system comprising:

fiber optic cable extending from approximately the upper portion of the tower to at least approximately the lower portion of the tower;

an antenna configured to receive the communication signal at a frequency;

a timing source located at approximately the upper portion of the tower and configured receive a stable timing source signal and to transmit a stable timing source based stable timing signal, wherein the stable timing source based stable timing signal comprises a global positioning system based timing signal;

a stabilized local oscillator located at approximately the upper portion of the tower configured to receive the stable timing source based stable timing signal and to use the stable timing source based stable timing signal as an input to generate a continuously stabilized

oscillator signal comprising a frequency that does not drift;

a block converter configured to convert the communication signal from the frequency to a stable lower frequency using the continuously stabilized local oscillator signal;

an optical converting system located at approximately the upper portion of the tower and configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over the fiber optic cable from approximately the upper portion of the tower; and

an optical receiving system configured to receive the optical signal over the fiber optic cable.

12. (Original) The system of claim 11 wherein the converting system comprises:

a fiber optic transmitter configured to convert the communication signal to the optical signal and to transmit the optical signal over the fiber optic cable.

13. (Original) The system of claim 11 wherein the receiving system comprises:

a fiber optic receiver configured to receive the optical signal over the fiber optic cable.

14. (Currently Amended) A system for receiving a communication signal having a frequency comprising:

a timing source configured to generate a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal;

a stabilized local oscillator configured to receive the stable timing signal and to use the stable timing signal as an input to generate a continuously stabilized oscillator signal comprising a frequency that does not drift;

an antenna at a communication tower configured to receive the communication signal;

a block converter configured to use the continuously stabilized oscillator signal to convert the frequency of the communication signal to a stable lower frequency;

a fiber optic transmitter configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over fiber optic cable; and

a fiber optic receiver configured to receive the optical signal over the fiber optic cable.

15. (Previously Presented) The system of claim 14 further comprising a filter configured to filter at least one member of a group consisting of emissions and another communication signal.

16. (Original) The system of claim 14 further comprising an amplifier configured to amplify the communication signal.

17. (Original) The system of claim 14 further comprising an electrical converter configured to convert the optical signal to an electrical signal.

18. (Original) The system of claim 14 further comprising an inserter configured to insert the stable timing signal on a transmission medium configured to carry the stable timing signal to the stabilized local oscillator.

19. (Original) The system of claim 14 further comprising a transformer configured to transform power from a first level to a second level.

20. (Original) The system of claim 19 further comprising an inserter configured to receive power at a second level from the transformer and to insert the power on a transmission medium.

21. (Previously Presented) The system of claim 14 further comprising a distributor configured to receive power over a transmission medium and to distribute the power to at least one member of a group consisting of the block converter, the fiber optic transmitter, and the stabilized local oscillator.

22. (Original) The system of claim 14 further comprising an external receiver configured to receive external timing signals from an external timing source and to generate the external timing signals to the timing source.

23. (Original) The system of claim 14 further comprising a suppressor configured to suppress electrical interference for the system.

24, 25. (Canceled)

26. (Original) The system of claim 14 wherein the fiber optic transmitter is located approximately at an upper portion of a tower and the fiber optic receiver is located approximately at a base of the tower.

27. (Original) The system of claim 14 wherein the stable timing source is located approximately at an upper portion of a tower.

28. (Original) The system of claim 14 wherein the stable timing source is located approximately at a base of a tower.

29. (Original) The system of claim 14 wherein the stable timing signal comprises approximately a ten megahertz global position system timing pulse.

30. (Original) The system of claim 14 wherein the communication signal comprises a multipoint multichannel distribution service based communication signal.

31. (Original) The system of claim 14 wherein the frequency of the communication signal comprises a high frequency and the stable lower frequency comprises an intermediate frequency.

32. (Original) The system of claim 14 wherein the frequency of the communication signal comprises approximately between 2.15-2.17 gigahertz..

33. (Currently Amended) The system of claim 14 further comprising:

a redundant block converter configured to use the continuously stabilized oscillator signal to convert the frequency of the communication signal to another stable lower frequency;

a redundant fiber optic transmitter configured to convert the other lower frequency communication signal to another optical signal and to transmit the other optical signal over another fiber optic cable; and

a redundant fiber optic receiver configured to receive the other optical signal over the

other fiber optic cable.

34. (Original) The system of claim 33 further comprising a selector configured to select for receiving the optical signal or the other optical signal.

35. (Currently Amended) A system for receiving a communication signal having a frequency comprising:

a timing source configured to generate a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal;

a stabilized local oscillator configured to receive the stable timing signal and to use the stable timing signal as an input to generate a continuously stabilized oscillator signal comprising a frequency that does not drift;

an antenna configured to receive the communication signal at a communication tower; and

a block converter configured to use the continuously stabilized oscillator signal to convert the frequency of the communication signal to a stable intermediate frequency.

36. (Original) The system of claim 35 further comprising a fiber optic transmitter configured to convert the intermediate frequency communication signal to an optical signal and to transmit the optical signal over fiber optic cable.

37. (Original) The system of claim 36 further comprising a fiber optic receiver configured to receive the optical signal over the fiber optic cable.

38. (Original) The system of claim 35 further comprising an amplifier configured to amplify the communication signal.

39. (Canceled)

40. (Original) The system of claim 35 wherein the frequency of the communication signal comprises a high frequency.

41. (Currently Amended) A system for receiving a multipoint multichannel distribution service based communication signal having a frequency comprising:

an antenna at a communication tower configured to receive the communication signal;

a timing source configured to generate a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal;

a stabilized local oscillator configured to receive the stable timing signal and to use the stable timing signal as an input to generate a continuously stabilized oscillator signal comprising a frequency that does not drift; and

a block converter configured to use the continuously stabilized oscillator signal to convert the frequency of the communication signal to a stable lower frequency before the communication signal is converted to the optical signal;

a fiber optic transmitter configured convert the stable lower frequency communication signal to an optical signal and to transmit the optical signal over fiber optic cable; and

a fiber optic receiver configured to receive the optical signal over the fiber optic cable.

42, 43. (Canceled)

44. (Original) The system of claim 42 further comprising an amplifier configured to amplify the communication signal.

45. (Currently Amended) A method for receiving a communication signal having a receiving frequency comprising:

generating a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal;

using the stable timing signal as an input to a local oscillator to generate a continuously stabilized oscillator signal comprising a frequency that does not drift;

receiving the communication signal at a communication tower;

using the continuously stabilized oscillator signal to convert the receiving frequency of the communication signal to a stable lower frequency;

converting the lower frequency signal to an optical signal and transmitting the optical

signal over fiber optic cable; and

receiving the optical signal over the fiber optic cable.

46. (Previously Presented) The method of claim 45 further comprising filtering at least one member of a group consisting of emissions and another communication signal.

47. (Original) The method of claim 45 further comprising amplifying the communication signal.

48. (Original) The method of claim 45 further comprising converting the optical signal to an electrical signal after receiving the optical signal over the fiber optic cable.

49. (Original) The method of claim 45 further comprising inserting the stable timing signal on a transmission medium configured to carry the stable timing signal to a local oscillator.

50. (Original) The method of claim 45 further comprising receiving external timing signals from an external timing source and using the external timing signals to generate the stable timing signal.

51. (Canceled)

52. (Original) The method of claim 45 wherein the optical signal is transmitted approximately from an upper portion of a tower and the optical signal is received approximately at a base of the tower.

53. (Original) The method of claim 45 wherein the stable timing signal is transmitted approximately at an upper portion of a tower.

54. (Original) The method of claim 45 wherein the stable timing signal is transmitted approximately at a base of a tower.

55. (Original) The method of claim 45 wherein the communication signal comprises a multipoint multichannel distribution service based communication signal.

56. (Original) The method of claim 45 wherein the receiving frequency of the signal comprises a high frequency and the lower frequency comprises an intermediate frequency.

57. (Currently Amended) A method for receiving a communication signal having a frequency comprising:

generating a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal;

receiving the stable timing signal at a local oscillator and using the stable timing signal as an input to generate a continuously stabilized oscillator signal comprising a frequency that does not drift;

receiving the communication signal at a communication tower; and

using the continuously stabilized oscillator signal to convert the frequency of the communication signal to a stable lower frequency.

58. (Original) The method of claim 57 further comprising converting the lower frequency signal to an optical signal and transmitting the optical signal over fiber optic cable.

59. (Original) The method of claim 58 further comprising receiving the optical signal over the fiber optic cable.

60. (Original) The method of claim 57 further comprising amplifying the communication signal.

61. (Canceled)

62. (Original) The method of claim 57 wherein the frequency of the communication signal comprises a high frequency and the lower frequency comprises an intermediate frequency.

63. (Canceled)

64. (Currently Amended) A method for receiving a multipoint multichannel distribution service based communication signal having a frequency comprising:

receiving the communication signal at a communication tower;

generating a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal;

receiving the stable timing signal at a local oscillator and using the stable timing signal as an input to generate a continuously stabilized oscillator signal comprising a frequency that does not drift;

using the continuously stabilized oscillator signal to convert the frequency of the communication signal to a stable lower frequency;

converting the communication signal to an optical signal;

transmitting the optical signal over fiber optic cable; and

receiving the optical signal over the fiber optic cable.

65. (Canceled)

66. (Previously Presented) The method of claim 64 further comprising amplifying the communication signal.

67. (Currently Amended) A method for receiving a communication signal comprising:

receiving the signal at a receiving frequency at a communication tower;

generating a stable timing signal, wherein the stable timing signal comprises a global positioning system based timing signal;

receiving the global positioning system based stable timing signal at a stabilized local oscillator and using the global positioning system based stable timing signal as an input to generate a continuously stabilized local oscillator signal comprising a frequency that does not drift;

converting the receiving frequency of a communication signal to an intermediate frequency using the continuously stabilized local oscillator signal;

converting the intermediate frequency signal to an optical signal and transmitting the optical signal over fiber optic cable; and

receiving the optical signal over the fiber optic cable.

68. (Currently Amended) A method for receiving a communication signal comprising:

receiving the communication signal at a receiving frequency at approximately an upper portion of a communication tower;

receiving a global positioning system signal at approximately the upper portion of the communication tower and using the global positioning system signal to generate a global positioning system based stable timing signal;

receiving the global positioning system based stable timing signal at a stabilized local oscillator located at approximately the upper portion of the tower and using the global positioning system based stable timing signal as an input to generate a continuously stabilized local oscillator signal comprising a frequency that does not drift; and

converting the receiving frequency of the communication signal to a stable lower frequency using the continuously stabilized local oscillator signal.